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# RBA monetary policy communication: The response of Australian interest rate futures to changes in RBA monetary policy

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ABSTRACT

This paper examines the Australian interest rate futures market reaction to changes in Reserve Bank of Australia (RBA) monetary policy. Having determined market expectations from 30-day Interbank futures, the study finds evidence that interest rate futures react strongly to target rate announcements across the maturity spectrum, with a stronger reaction evident in short maturity futures. Further, there is evidence of an asymmetric news effect whereby volatility reacts more strongly to bad news. Disaggregation of the market reaction into target- and path-surprise factors demonstrates that the change in market expectations of future target rates plays a significant role in explaining changes in yield, particularly for bond futures. There is strong evidence that monetary policy statements drive the path-factor, while the December 2007 modification in policy communication has improved the ability of the RBA to influence market expectations.



## 1. Introduction

The past two decades have witnessed the emergence of monetary policy as the primary tool of central bank policy-makers in their efforts to achieve the twin goals of low-inflation and economic growth. Blinder et al. (2008) suggest that communication can be an important and powerful part of the central bank's armory since it can move financial markets, enhance the predictability of monetary policy decisions, and help achieve the central banks' economic objectives. From the perspective of policy-makers, the reaction of financial markets to the release of monetary policy decisions is of great interest as it provides them with information as

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to how well decisions are anticipated by market participants, and how market participants adjust their views about future monetary policy in response to a given decision. The expectation of the future path of interest rates plays a pivotal role in the real economy in terms of investment decisions and therefore future economic output. Reflecting this, greater attention has been placed on the impact of monetary policy announcements across a range of asset classes including fixed income, foreign exchange, and equities.

Much of the empirical work to date has focused on US markets, and investigation of the impact of Fed target rate news (Gulley and Sultan, 2003; Chulia et al., 2010), although the literature is expanding to European (Bredin et al., 2009), and Asia-Pacific (Kim and Nguyen, 2008) studies. Equity markets have received the most attention (Bernanke and Kuttner, 2005; Bjørnland and Leitomo, 2009; Bomfim, 2003) with the general finding that interest rate increases (cuts) result in negative (positive) equity returns. The literature on the impact of monetary policy announcements on foreign exchange (Andersen et al., 2003; Edison, 1996; Kim and Nguyen, 2008) find that the currency which has a central bank that is tightening (easing) monetary policy will appreciate (fall) in value relative to other currencies all else equal.

Cook and Hahn (1988, 1989) were among the first to study the reaction of fixed income markets to monetary policy action. Examining the period 1974–1979, a period of more opaque monetary policy than currently exists, they were able to demonstrate that changes in the Fed Funds target rate produced large movements in short-term rates, and smaller but significant movements in intermediate- and long-term rates. Several studies (e.g. Demiralp and Jorda, 2004; Gasbarro and Monroe, 2004; Taylor, 1995) have echoed those findings, both in terms of the significance of the monetary policy announcement impact, and the difference in the magnitude of the impact on short-term and long-term interest rate securities.

Kuttner (2001) and Fatum and Scholnick (2008) find that asset returns and volatilities respond only to the surprise component in monetary policy announcements. The literature has followed two paths in determining the surprise component; the majority, including Bernanke and Kuttner (2005), and Lee (2006), use an approach postulated by Kuttner (2001) to calculate the news element from futures market pricing. Similarly Gürkaynak et al. (2007) examine the use of market based measures of US monetary policy expectations. The second approach, utilized by Ehrmann and Fratzscher (2003) and Kim and Nguyen (2008) consider policy announcement deviations from market survey results as target surprises. Kuttner (2001) argues that his measure delivers a nearly pure measure of the surprise component of the target change yet this measure has not been employed in an Australian environment. More recently, Gürkaynak et al. (2005) and Andersson (2010) model the impact of monetary policy announcements as a two-factor model consisting of target and path surprises, with changes in longer-term Treasury yields more closely associated with the change in expectations of future interest rates (the path factor). Similarly, Fleming and Piazzesi (2005) show that yield changes depend not only on the target surprise but also the shape of the yield curve.

Increased market volatility is associated with higher uncertainty about the market outlook which also affects, among other things, the ability of market participants to discern the current monetary policy stance. If interest rate volatility, which is higher among short-term rates, is further transmitted toward long-term rates, then investment decisions, and thus overall economic activity, will also be affected. As a result, it is necessary for the policy-makers, together with market participants, to understand the impact of monetary policy announcements on the volatility of returns, and this is the direction of recent studies. Lee (2006) examines the response of interest-rate volatility to Fed Funds target rate changes over the 1989–2003 period and finds a positive relation between monetary policy news and volatility. Kim and Nguyen (2008) and Chulia et al. (2010) provide evidence of the asymmetric effect of policy surprises; a positive interest rate surprise (i.e. an unexpected target rate increase) evokes a larger effect on market returns and volatility than a negative interest rate surprise.

In the Australian context, the empirical literature on the RBA's cash rate announcement effect is limited to the investigation of the announcement impact on the first moment of Australian market returns, e.g. Edey and Elliott (1988), Gasbarro and Monroe (2004) and Brooks and Diggle (2007). Another common limitation of previous Australian studies is that they only examine the overall impact of cash rate announcements rather than the surprise or news component of the announcement to which markets are responding, and none considers a two-factor alternative.

This paper has several key aims. Firstly, an investigation into the role played by the RBA's interest rate news on the Australian interest rate futures market, using a unique adaptation of Kuttner's (2001) methodology to identify news components. Following Gürkaynak et al. (2005) the futures market reaction is considered as a two-factor model. The full maturity spectrum of interest rate futures is considered for the first time; specifically the very short-end 30-day Interbank futures are included. Finally, the impact of monetary